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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/691,571

10/24/2003

Shigeru Nemoto

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6949

22850

7590

09/17/2009

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

VU, QUYNH-NHU HOANG

ART UNIT

PAPER NUMBER

3763

NOTIFICATION DATE

DELIVERY MODE

09/17/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/691,571	NEMOTO, SHIGERU	
	Examiner	Art Unit	
	QUYNH-NHU H. VU	3763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) 3-13, 16 and 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 14-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

Amendment and Request for Continued Examination (RCE) filed on 06/18/09 have been entered.

Claims 1, 2, 14-15 are present for examination.

Claims 3-13, 16, 18-20 are withdrawn.

Claims 17 and 21-29 are cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bae et al. (US 6,055,985) in view of Kawamoto (US 5,365,254) or Tanaka et al. (US 5,535,317).

Regarding claim 1, Bae discloses a liquid injector comprising: image displaying means for displaying a plotting chart image having a vertical axis and a horizontal axis (Figs. 1-10B). In order to make the graph image display in Figs. 1-10A, the device must be including of graph entering means for accepting an input action to enter an injection graph having chronologically changing injection conditions into the displayed plotting chart image (Figs 3 or 5; the injection rate (ml/s) vs. with different times in sec); graph storing means for storing data of the entered injection graph, for example, it can store the data and make another two or three or many different curves or graphics in the same chart; graph displaying ; graph displaying means for displaying an image of the entered injection graph whose date is stored on said displaying plotting chart image; and injection control means for controlling operation of the injection performing means in real time according to the entered injection graphs. Bae further states that a control console 24 which maybe a LCD display to provide for operator input and control of the injector, and a

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stand 26 with a base 28 containing the computer or other digital controller (col. 11, lines 35-39). As know that, nowadays, it is very well-known in the LCD display provided the touch panel display.

As mentioned earlier, Bae also suggests the graphic means for accepting an input action to enter an injection graph having chronologically changing injection conditions in a form of free curve, a plurality of straight lines, plurality of passing points (Figs. 3 & 5), but does not show the graph displayed plotting chart image on the touch panel.

Kawamoto discloses in Fig. 3 that a computer device comprising a touch panel-type display screen 10 that display data area 18 and accepts input actions; the image display means 11; the graphic entering means (for example: keyboard enters the data in X & Y-axis) and the display means comprising: time-axis X (horizontal direction) vs. Y (vertical direction) in Figs. 1-3 & 6-7.

Risberg discloses in Fig. 1 that a computer device comprising a display screen 13 comprising: a graph entering means for accepting an input action to enter an exchange rate having chronologically changing conditions in a form of a free curve, a plurality of straight lines, a plurality of passing points displayed plotting chart image on the panel display 22.

Therefore, one skill in the art would recognize that the Y axis of Kawamoto or Risberg can be input in any data values for intended use or matter of design choice.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to try or modify the device of Bea with graphic displayed such as plotting chart image on the touch panel, as taught by Kawamoto or Risberg, for the purpose of intending use or the user able to view the data changing in different the time period.

Regarding claim 2, a times measuring means; said image displaying means comprising means for displaying said plotting chart image whose vertical axis represents liquid injection rates and horizontal axis represent liquid injection times (Figs. 3 & 5A); said graph entering means comprising means for accepting an input action to enter said injection graph which represents a liquid injection rata at each liquid injection time into said plotting chart image; said injection control means comprising means for

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controlling operation of said injection performing means in real-time according to the measured time and said entered injection graph (col. 11, lines 25+).

Regarding claims 14-15, Bae discloses the invention substantially as claimed. Bae further discloses that the injection performing including a desired interval of an injection routine (claims 1 or 9 of Bae). As interval time, the injection routine or injection pattern must be interrupted or inactivated period. Bae does not clearly performing or entering the period for interrupting the injection of the liquid into the displayed injection graph.

Since Bea is able to bring up the date into the graphic, therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to try or modify the device of Bea with graphic as in claims 5, 14-15 into the display is for the purpose of intending use.

Response to Arguments

Applicant's arguments with respect to claims 1-2, 5, 14-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh-Nhu H. Vu whose telephone number is 571-272-3228. The examiner can normally be reached on 6:00 am to 3:00 pm.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas D Lucchesi/
Supervisory Patent Examiner, Art Unit 3763

Quynh-Nhu H. Vu
Examiner
Art Unit 3763